



APRIL, 1950

Vol. 30, No. 4

Hobbies

THE MAGAZINE OF
THE BUFFALO MUSEUM OF SCIENCE

PRICE TEN CENTS

YOUR MUSEUM SCHEDULE

SPECIAL EXHIBITS AND EVENTS

(Subject to change; verify through daily newspapers)

- April 1-15 Guild of Allied Arts Exhibit
- April 4 Great Books Discussion at 7:30 p.m.—Locke: Of Civil Government (second essay)
- April 10 Fourth Annual Movie Salon of the Amateur Cinema Club of Buffalo. Six films from the 1949 national contest to be shown at 8:15 p.m.
- April 10-15 Conservation Caravan in the "Niagara Country" sponsored by the Buffalo Museum of Science and the Conservation Forum of New York State
- April 18 Great Books Discussion at 7:30 p.m.—Rousseau: The Social Contract, Books I-II
- April 22-
May 14 Twenty-first Annual Exhibition of Sketch Clubs. Opening April 22 at 8 p.m.
- April 29 Concluding Program of Junior Activities at 10 a.m.
- April - May Traveling salons from selected photographic clubs throughout the United States, sponsored by the Science Museum Photographic Club
- May 1-31 Conservation Forum of New York State Exhibit
- May 2 Great Books Discussion at 7:30 p.m.—Federalist Papers: Nos. 1-10, 15, 31, 47, 51, 68-71 (along with the Constitution)
- May 6 Eighth Annual Science Congress presented under the joint sponsorship of the Science Section of Western Zone New York State Teachers Association, the Buffalo Evening News, and the Buffalo Museum of Science
- May 6-13 Seventh Annual Science Congress Salon of Photography
- May 9 Great Books Discussion at 7:30—Smith: The Wealth of Nations, Book I, chaps. 1-9
- May 13 Eleventh Annual School of Conservation conducted by the Conservation Forum of New York State
- May 16-
June 12 Twelfth International Salon of Nature Photography conducted by the Science Museum Photographic Club with the cooperation of HOBBIES. Formal opening May 16 at 8 p.m.
- May 16 Great Books Discussion at 7:30 p.m.—Marx: Communist Manifesto

SUNDAY AFTERNOON PROGRAMS

Hayes Lectures —3 o'clock

- April 2 Polynesia—A Tale of Tahiti, by Herbert Knapp
- April 9 Amazon Jungle Tribes by Lewis Cotlow
- May 21-
June 11 Projection of color slides in the Twelfth International Salon of Nature Photography each Sunday at 3 o'clock

PUBLIC NIGHTS IN KELLOGG OBSERVATORY

April - May Thursday night at 8:30 p.m.

ON THE COVER

The spotted leaves of adder's-tongue are shooting up everywhere as spring advances. Here the dogtooth violet, as it is also known, nestles in last year's leaves at the base of a tree. Martin G. Schneckenburger was the photographer.

Hobbies
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EMILY H. ZURBRICK, *Editor*
MARY-LEE HERENDEN, *Associate Editor*

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Entomology at the Museum

By George F. Goodyear

President, Buffalo Society of Natural Sciences

The public generally is aware that insects play an important role in our lives, but few of us perhaps realize how important this role is. With the exception of unicellular organisms, such as bacteria, fungi, and protozoa, the insect population of the world is considerably in excess of all other forms of life combined. In variety of form, insects account for seventy-five per cent of all known forms of animal life, with over 600,000 described species, and an estimated twenty times this number yet undiscovered. In size, insects vary from a hundredth of an inch to over a foot in length, a greater range than that exhibited by any other group.

The insect is important both to our economic well-being and to our health. The destruction of our agricultural wealth, both crops and trees, by insects greatly exceeds losses of such wealth from all other causes, including war, floods, and droughts. On the other hand, many plants can reproduce only through the medium of insects, such as bees. The role of insects in the dissemination of bacterial diseases is well-known to all of us.

Our Museum is an ideal place for the youthful enthusiast to learn the rudiments of entomology and for the advanced student to pursue his studies. For the former, and for the average person who is interested or curious about things in the insect world that he observes about him, Dr. Harold H. Axtell, curator of zoology, and William Wild, research associate in entomology, are available to answer your questions. For the latter, the Museum maintains, with the able assistance of Mr. Wild, an extensive collection of beautifully mounted butterflies, moths, beetles, and other insects, consisting of over 60,000 individual specimens.

At one time the Museum had an active and enthusiastic entomological section, but through the years, interest in the subject as a hobby has somewhat declined. It is our earnest hope that, with a realization of the wonderful opportunities for the pursuit of this hobby available through the facilities of the Museum, the entomological section will become more active. We suggest that you communicate your ideas to Dr. Axtell or Mr. Wild.

Notes on the Stratigraphic Occurrences of the Palaeozoic Fishes

As Evidenced by Fauna Collected in Western New York

By Alick L. Carter

Research Associate in Vertebrate Paleontology

In the following notes, the term "Western New York" refers to that portion of the state west of the Genesee River.

The earliest form of vertebrate life reported in this area is to be found in the Middle Devonian sedimentary rocks of the Onondaga limestone, which was laid down under marine conditions.

Lying unconformably upon the Cobleskill dolomite and under the Onondaga limestone, are to be found, in some exposures, thin lenses of a greenish arenaceous shale running up to three inches in thickness, which is probably replacing the eroded Lower Devonian Oriskany sandstone. The only evidence so far found of this formation was a sandstone dyke in the Bennett quarry mentioned by Grabau and seen by the writer, but now buried by fill.

On the underside of the Onondaga limestone and in contact with this lenticular greenish shale are reported the fin spines of the shark *Machaeracanthus* and a slab containing both pectoral spines of *M. major* Newberry with impressions of one spine each of *M. peracutus* Newb. and *M. sulcatus* Newb. (Carter 1942), suggesting that these spines were appendages of the same animal. At this same horizon is also reported a small dorsomedian of *Coccoosteus*.

In this formation and above the unconformity are also reported a very varied fauna including *Ctenacanthus*, *Cyrtacanthus*, *Deinodus* and allied ptyctodont forms, *Macropetalichthys*—including pectoral spines formerly known as *Acanthaspis* but now referred to as *M. rapheidolabis* Nor-

wood and Owen (see Heintz)—*Onychodus*, *Parapteryctodus*, *Palaeomylus*, *Ptyctodus*, and *Rhynchodus*. *Onychodus* is represented in this formation by many sigmoidal presymphyseal teeth, smaller mandibular teeth, several plates, and mandibles. *Macropetalichthys* is represented by several impressions, crushed crania, plates, and one absolutely uncrushed cranium (because it was covered with chert), not complete, as one side, from the anterior end of the pineal plate to the left external occipital plate in a straight line, is missing. The petrified flesh around the orbit is distinctly shown as being of a fibrous structure. The structure of the nerve material in the sensory canals, the ornamentation and thickness of the skin covering the cranial plates, and the natural arch of the cranium are all clearly evident. In several instances the plates and spines of the animal formerly known as *Acanthaspis armatus* Newberry were found in fairly close association, suggesting that they were the dorsal plates of *M. rapheidolabis* N&O, which is now, according to Heintz, accepted as correct. Two instances of this fairly close association were collected by the writer at the Federal Crushed Stone quarry in Cheektowaga. However, one must always bear in mind that in other formations, notably the Conodont layer, the Genundewa limestone, and the Rhine-street shale, no cranial plates have been found, only dorsal plates and spines.

The form *Deinodus* and allied ptyctodonts are represented by over a hundred specimens collected at the Bennett quarry, west side of the belt

line railroad, from a layer about fifteen feet above the Onondaga-Cobble-skill contact and on the east side of the quarry. Very few specimens have been collected from any of the other Onondaga quarries or outcrops, and they do not seem to occur over or under this layer or in any other formation. The writer has collected some showing the same forms from a pressure ridge running across the floor of the large Port Colborne quarry in Canada.

The next ascending formation, the Marcellus, lowest member of the Hamilton group and composed of the Oatka Creek black shale underlying the Stafford limestone, has to date shown no sign of any fish fauna. This also applies to the next overlying formation, the Skaneateles (Levanna black shale), although it should be very carefully examined for these forms.

In the Ludlowville formation, the Centerfield limestone, while extremely fossiliferous in invertebrates, has so far shown no sign of fish remains.

The overlying Ledyard shale has to date only shown *Aspidichthys*, while the trilobite bed of the Wanakah member, which overlies, has produced *Machaeracanthus*, *Onychodus*, and *Palaeomylus*.

In the overlying Moscow formation, the Kashong shale shows no fish, but the Windom member has quite a varied fauna including *Ctenacanthus*, *Dinichthys*, *Eczematolepis*, *Machaeracanthus*, *Palaeomylus*, and *Ptyctodus* (two species). In the overlying pyrite layer are reported *Cladodus*, *Ctenacanthus*, *Dinichthys*, *Ditodus* (two species), *Eczematolepis*, *Gyracanthus*, *Palaeomylus*, and *Ptyctodus* (two species). While the invertebrates in this formation are all diminutive from some cause — probably the very impure nature of the water — the free swimming fish appear to be of natural size as found in other formations, so that it is possible that the fish were deposited as cadavers which floated down some fresh-water stream emptying into the impure body of water. This forma-

THE FORMATIONS

Chemung stage	Chemung group	{ Wiscoy shale Angola shale	{ Hanover shale Pipe Creek shale
	Naples group	{ Attica shale Cashaqua shale Middlesex shale West River shale	{ Hatch shale Rhinstreet shale
Finger Lakes stage	Genesee group	{ Genundewa limestone Conodont bed	
Taghanic stage		Genesee shale	
		{ Pyrite bed Moscow formation	{ Windom shale Kashong shale
Tioughnioga stage	Hamilton group	{ Ludlowville formation Skaneateles formation Marcellus formation	{ Tichenor limestone Wanakah shale Ledyard shale Centerfield limestone Levanna black shale Stafford limestone Oatka Creek black shale
Onesquethaw stage		Onondaga limestone	



Simmons

CRANIUM OF MACROPETALICHTHYS
RAPHEIDOLABIS Norwood and Owen

tion is lenticular, extremely variable in thickness and very spotty, ranging from a quarter of an inch or even less, to at least six inches.

The Conodont bed, an impure limestone found in lenticular patches in several localities, is most prolific in the number and variety of the fossil vertebrate remains, although the specimens are either whole or parts of detached plates. Never is there a complete cranium or dorsal armor as is sometimes found in the other formations. These lenticular patches must have been laid down close to shore and near stream mouths opening into the body of salt water. They contained the remains of many freshwater fauna, besides small pieces of fossil wood, et cetera, probably caught in eddies and whirled around until finally deposited, as evidenced by the much-broken and abraded condition of many of the specimens. There have been found in this formation in Western New York thirty-one distinct genera and thirty-nine described species as well as fifteen additional identifiable species, which have not been studied and given specific names.

The genera reported from the Conodont bed are as follows: *Acanthodes*, *Acmoniodus*, *Anodontacanthus*, *Aspidichthys*, *Atopacanthus*, *Cladodus*, *Coccosteus*, *Copanognathus*, *Coronodus*, *Ctenacanthus*, *Dinichthys*, *Dinomylostoma*, *Dipterus*, *Dit-*

odus, *Eczematolepis*, *Gyracanthus*, *Heintzichthys* (formerly *Stenognathus*), *Holonema*, *Holoptychius* (scales) *Machaerognathus*, *Macropetalichthys* (note: no cranium or cranial plates of this genus have been found here, only pectoral spines of the animal formerly known as *Acanthaspis armatus* Newberry which is now, following Heintz, placed under the genus *Macropetalichthys raphiidolabis* Norwood and Owen), *Oestrophorus*, *Orodus*, *Onychodus*, *Palaeomylus*, *Perissognathus*, *Ptyctodus*, *Rhynchodus*, *Stethacanthus*, and *Synthetodus*.

The Genesee shale overlies the pyrite and contains a fair assemblage of fish remains including *Ctenacanthus*, *Dinichthys*, *Eczematolepis*, *Gyracanthus*, *Machaeracanthus*, *Palaeomylus*, and the earliest appearance of *Seleosteus*. This formation is very irregular in regard to evidence of vertebrate life, the writer having spent many hours without finding the faintest evidence, while some other location will produce one or two specimens.

Above and contacting the Genesee shale where the conodont layer is absent is the Genundewa limestone, which can be readily recognized by its great number of shells of the small pterapod *Styliolina*. Remains of fossil fish are quite scattered but where found, the Wanakah quarry in Erie county being a good example, they are really prolific. There is no record of any complete crania or dorsal armor being found, but some exceptionally fine specimens of plates, particularly ptyctodont tritors and various arthrodire plates, have been collected. The genera included in this formation are *Aspidichthys*, *Cladodus*, *Ctenacanthus*, *Dinichthys*, *Dinomylostoma*, *Dittodus*, *Glyptaspis*, *Gyracanthus*, *Heintzichthys*, *Machaeracanthus*, *Macropetalichthys* (see note preceding), *Palaeomylus*, *Ptyctodus*,

Onychodus, *Orodus*, *Selenosteus*, and *Stethacanthus*. Most of the specimens are found on the Genesee shale contact, that is, the underside of the Genesee limestone, but sometimes specimens are found in the middle of the layer, examples of which are: a complete ventro-dorso-lateral of *Glyptaspis verrucosus* Newberry (a large and beautiful specimen found by the writer east of Springbrook, Erie County), the upper and lower tritons, in association, of an undescribed ptyctodont (found by the writer on Tonawanda Creek, south of Route 20 and east of Alexander), also part of a presymphysial crest of *Onychodus* containing three large sigmoidal teeth, at the Springbrook locality.

Above and in contact with the Genesee limestone is the West River shale, the formation at the top of the Genesee group. While the fauna is not particularly numerous as to genera or species, this has been, to the writer, the most satisfactory collecting formation, so far, in the ascending group for the vertebrate fossils. The collection includes practically complete crania with dorsal and ventral armor of two *Dinichthys*, one having a heavy infra-gnathal element, fifteen and a half inches long, and the other a deep thin one. On the latter slab lies a complete cranium of *Selenosteus*. Neither of the *Dinichthys* have been described and

they are new species. Magnificent large plates of *Holonema* are found in the West River shale.

The following genera are reported from this formation: *Dinichthys*, *Dinomylostoma*, *Heintzichthys*, *Holonema*, *Ptyctodus*, *Selenosteus*, and *Stenosteus*.

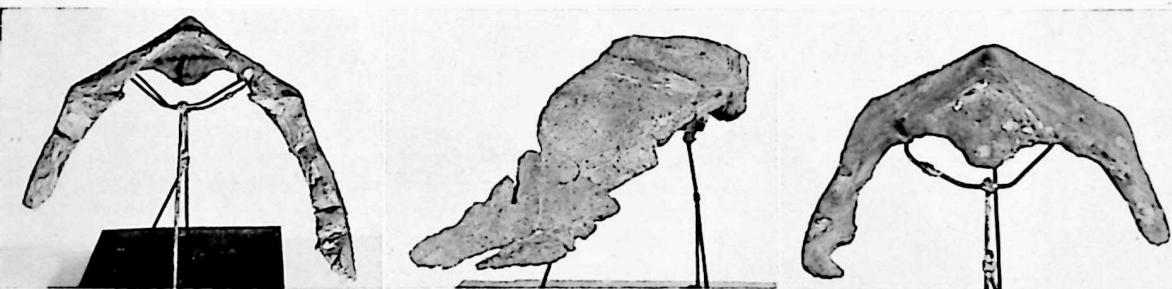
Overlying the West River shale is the Middlesex shale, usually regarded as not containing a fish fauna. At the Wanakah quarry, however, it proved to be a good collecting horizon and included a spine of *Ctenacanthus* with over half-a-square-foot impression of the shagreen of the shark showing the lozenge-shaped ornamentation. The following genera are reported from the formation: *Ctenacanthus*, *Dinichthys*, *Dinomylostoma*, *Holonema*, *Palaeomylus*, and *Stenosteus*. Incidentally, the *Palaeomylus* shows two tritons and some other plates of the animal on the same slab.

It will be noticed that the fauna of the West River and Middlesex shales are very similar. Most of these specimens were collected from the same quarry which is an exceptionally good collecting spot, as all formations from the Moscow shale to the Cashaqua shale, inclusive, are uncovered.

Overlying the Middlesex shale is the Cashaqua shale in which the only reported genera are *Dinichthys* and *Dinomylostoma*. Fossils in this for-

DORSAL ARMOR OF BRACHYDIRUS n. s.

Simmons



mation are usually found in or on the concretions.

Overlying the Cashagua shale is the Attica shale, divided into Rhinestreet and Hatch shales (of Chadwick). The Rhinestreet, a black shale at the base, gradually becomes lighter and more arenaceous toward the top of the formation. A good assemblage of fossil fish is found in the black shale and also in the slightly higher layers which contain the huge concretions. In one concretion was found the cranium, dorsal and ventral armor of the arthrodire *Dinichthys magnificus* Hussakof and Bryant. In this formation have been collected the following genera: *Aconthodes*, *Atopacanthus*, *Ctenacanthus*, *Callognathus*, *Dinichthys*, *Dittodus*, *Dinomylostoma*, *Gyracanthus*, *Glyptaspis* (*Holonema*?), *Heintzichthys*, *Macropetalichthys* (see note on page 70), *Phyllolepis*?, *Rhadinichthys*, and *Selenosteus*. A complete palaeoniscid, *Rhadinichthys*, including fins, scales, and plates — partly in counterpart — was collected by the writer from the Rhinestreet at Cowlesville, New York. From this formation, at Sturgeon Point, has been collected a complete cranium with dorsal and ventral armor of *Heintzichthys*.

The next fossiliferous formation is the Angola shale which overlies the Hatch formation. The Angola shale has been usually considered devoid of fossils, but some years ago a complete dorsal armor of an arthrodire, considered to belong to the genus *Dinichthys* (see Carter 1945), was discovered. After removal from the matrix, however, the writer found that it belonged to the genus *Brachydirus*, heretofore only reported from the German Wildungen. Last summer three small plates were found in this formation, but they have not yet been studied to place them in their correct generic position. It will be very profitable to any serious collector to work this formation on the

shore of Lake Erie, although it may be a wet job.

In the Pipe Creek shale at Silver Creek were collected the cranium and body armor of the arthrodire *Leptosteus*. Only two other plates have been collected from this formation, both in such condition as to be unidentifiable.

In the higher formations through the Chemung, some specimens have been found, but until the Catskill facies is reached, particularly in Pennsylvania, nothing of much importance has been reported from the southern portion of Western New York.

In review: while *Palaeaspis* and *Onchus* have been found in the Silurian Bloomfield sandstone, in Perry County, Pennsylvania, which is, according to Eastman, the middle portion of the Salina beds, this formation is not represented in Western New York. No vertebrates are found in any Silurian formation in this area.

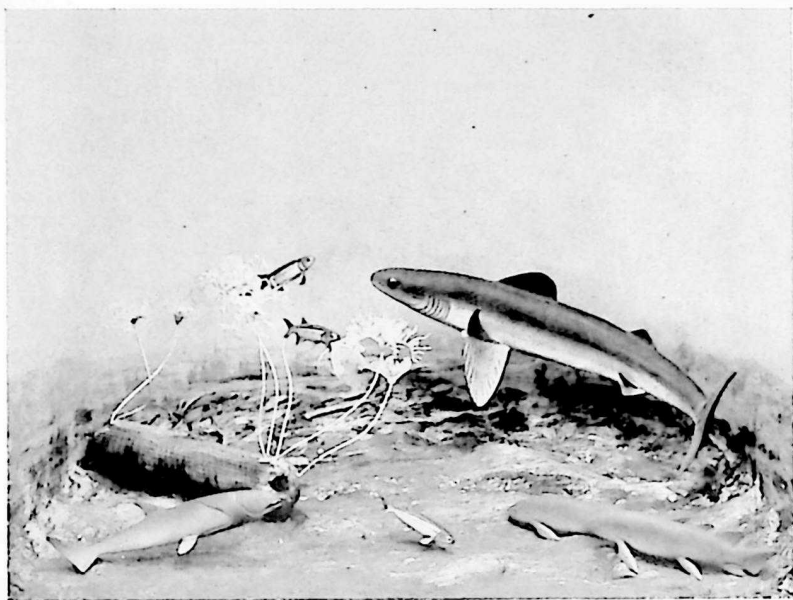
Onchus is also reported from the Clinton beds of Pennsylvania, but not from the Niagara County Clinton beds.

While "dermal denticles possibly of *Cladoselache*" are reported from Marcellus shale at LeRoy, New York (Eastman 1907), exhaustive search has failed to substantiate this claim. Plausible explanations are that the specimen was from an invertebrate or else left there by someone like my very good friend Max Kopf, the Museum's Research Associate in Paleoechinaderma and Machaeridae. When in the German army during the first World War, he collected some beautiful Ammonites on the southern slopes of the Alps in Italy and carried them into the battlefields of France, then through Germany, Austria, Hungary, Montenegro, Yugoslavia, and finally dropped them near the Greek border in Yugoslavia for they got heavier every mile. He often wonders what

some collector thought who found these fossils in a totally foreign formation or even age.

To date, little work has been done in this area collecting the vertebrates in the higher formations. Formations heretofore considered to be barren have rewarded the collector with good results.

We would again like to impress upon local collectors the necessity of working the Angola and Pipe Creek shales in this area, as it may be that these formations are coeval with the Wildungen of Germany. Any fish finds should be reported immediately to the Buffalo Museum of Science for record.



RESTORATION OF PRIMITIVE FISHES IN THE BENNETT ALCOVE OF GEOLOGY IN THE HALL OF THE NIAGARA FRONTIER. THE GROUP INCLUDES CTENACANTHUS, RHADINICHTHYS, COCCOSTEUS, AND DIPTERUS.

Extension Services for Children

Fostered by the Junior Education Division

By Ruth V. Weierheiser

Assistant Curator of Education in Charge of Junior Activities

A casual reader of HOBBIES might come to the conclusion that all educational opportunities offered our young citizens are found within the walls of the Museum building. This, however, is not the case. Since July of 1942, the personnel of the Junior Education Division has planned, labeled, and personally installed sixty-four table case exhibits in the outpatient department of the Children's Hospital, the upper-grade schoolroom of the Crippled Children's Guild, and in the main hall of the Crippled Children's School on Grider Street. The exhibits are carried by car from one location to another, the new exhibit first shown at the Children's Hospital, and the retiring one brought in from the Crippled Children's School on the same trip.

Exhibits have included native-made American Indian artifacts, Winter Bird Feeding, How Seeds Travel, Common Seashells, Varieties of Coral, Nature as an Inventor, Spring on the Farm, Winter on the Farm, Importance of Milk, Insects, Artifacts from Egypt, the Philippines, Mexico, and Japan, Woodland Spring Flowers (made of crepe paper), and Dolls of Other Countries. A doll exhibit is installed once a year, as this type of material has the most universal appeal to all ages.

Thousands of sick and crippled youngsters enjoy these exhibits every year. Who can tell what new horizons have been opened to them, and how much pleasure is derived from such visual aids?

Another service for young people offered by the Museum, which extends beyond its walls, is a mimeographed magazine called "Hobbies, Jr." published in November, February, and April by the teen-age members of

the Junior Hobby Club. This publication, which is a representative house organ, is now in its twenty-fourth year. Hundreds of Story House members as well as older boys and girls are among its readers. Ruth Linger is this year's editor. Officers of the Junior Hobby Club are: Ronald P. Koch, president; F. Werner, vice-president; M. Gilbert, secretary; and D. Eberle, treasurer.

Of late years, mostly fourth, sixth, and eighth graders from our schools have visited the Museum on regularly scheduled tours. The annual Science Essay Contest, held every year, has been assigned to the sixth graders of Buffalo. The subject for this year's essay, which is the annual contest made possible through special funds provided by Mrs. Morris B. Twersky, is "Special Insects of the Niagara Frontier." Participants were asked to visit the insects in the Museum's Hall of Natural History, the Niagara Frontier, and to read about them in the Popular Library Reading Room. Winners will receive awards at the Concluding Parade on April 29.

A new venture in the Division this year has been the Cradle Board Club for children six through eight years of age. Nearly thirty youngsters in this group have been regularly enjoying a nature handcraft project under the leadership of M. Colvette. The Stepping-stone Club, now six years old, has had its membership level raised to nine through the year. Jean E. Russell, the instructor, has conducted a nature-craft project for the Club each year. It was the younger "fringe" of this group, now grown too large, that formed the nucleus for the Cradle Board Club.

Max J. Kopf

Recently Appointed Research Associate

By John D. Sargent

Assistant in the Division of Geology and Paleontology

Max J. Kopf, the Museum's newest research associate in the Division of Geology and Paleontology, was born February 8, 1893, at Bad Aibling, Germany. After graduating from high school, he worked with the Munich Travel Bureau for thirteen years. During six years' service in the German army, World War I, Mr. Kopf found time to do some geologic collecting in France, Tyrol, Italy, and Greece. He was married in 1921, and moved to Buffalo in 1924.

Mr. Kopf's interest in paleontology continued in the United States. Gradually he came to specialize in echinoderms, and now has one of the world's largest private collections of these fossils. More recently he has become interested in the little-understood group of machaeridae of which he has also built a large collection. Mr. Kopf's home is a veritable museum in its own right. Although he has not yet attempted to describe any type specimens himself, he has found many new species and even a few new genera, several of which are named in his honor.

Just lately, Mr. Kopf was sponsored for membership in the Paleontological Society by the Drs. Basslow, Cooper,



and Loeblich of the National Museum in Washington, D. C.

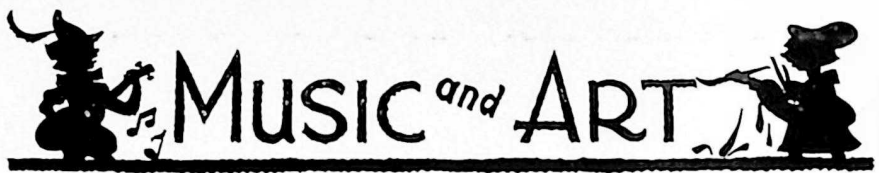
Long membership in the Geology Section of the Buffalo Society of Natural Sciences and his aid in reorganizing the Museum's echinoderm collection led to his appointment in January, 1950, as Research Associate in Paleoechinoderma and Machaeridae.

Notice — Idle Binoculars Made Busy

So many students have registered in the Museum's bird classes that "spotting" in the field will be practically impossible this spring unless more binoculars can be secured. You will be doing the young naturalist a great service if

you can make a gift of any pair, six-power or over, that you no longer use to this Museum.

Please contact Heather Thorpe, Education Department, Buffalo Museum of Science, Buffalo 11, New York (Grant 4100).



MUSIC and ART

Dorothea N. Kelley
Assistant Curator of Music

Nelle R. Wyatt
Art Instructor

Music. Because of the coal strike, many activities at the Museum were necessarily suspended, and the Twilight Music Hour scheduled for March 5 was postponed until March 19. Carl Fuerstner and Walter Hartley of the Eastman School of Music presented a program of original music for piano duet on the latter date. The postponement of this program meant the omission of the annual Composers Forum for the first time in nine years.

The week end of March 11 was a busy one for the Buffalo Schola Cantorum which presented two major choral works with orchestra on successive days. On March 11, in combination with the Oratorio Chorus, they sang Verdi's *Otello* in Kleinhans Music Hall with the Buffalo Philharmonic Orchestra under the direction of William Steinberg. This was a national broadcast, the "Orchestras of the Nation." The following day, under the baton of their regular conductor, Cameron Baird, the group sang Bach's *St. Matthew Passion* in Trinity Church. The orchestra was the Buffalo Chamber Music Society, and the soloists were local with the exception of Clifford Harvuot of the Metropolitan Opera, who sang the part of Christ. John Priebe was the Evangelist.

The spring semester of the evening music classes which was to have begun on March 6, started two weeks later. Both classes had a good registration. The Saturday children's classes completed their sessions at the end of March, with the exception of the Museum Junior Chorus which is preparing for the Concluding Party program on April 29, under the direction of Dr. Nathan Ehrenreich.

Art. On Saturday evening, February 11, the Junior Museum hall was transformed into the rustic atmosphere of a barn for a Farmers' Dance, given by the Junior Board of Arts and Sciences and the All-high Sketch Club. Dressed in jeans and checkered shirts, the guests arrived, each bringing a box lunch, which they exchanged with their neighbors after the dancing stimulated healthy appetites.

Walter Sallis was the jovial Master of Ceremonies, and led by his hearty calling of the square-dances, many a toe was trod upon in the merry measures. With the generous aid of the Misses Colvette, Thorpe, and White, and with the fine cooperation of all the committees, the party was a huge success.

Though the enforced vacation of the Sketch Club classes, due to the coal shortage, has taken its toll in the amount of work planned for February, the young artists have already submitted many fine drawings for the annual Sketch Clubs Exhibition, which opens Saturday evening, April 22, in the Museum.

The Exhibition should be a show well worth seeing, judging from the entries thus far. Jerome Okoniewski's ceramics group will have many interesting clay pieces to display. The water-color class, under the direction of Bert Green and Joseph Becht, Buffalo State Teachers College students, has been experimenting in the different halls of the Museum with various lighting arrangements to get desired effects. The results are striking and should add to the Exhibition.

(Continued on page 78)



Museum News



In Memoriam. James H. McArtney died suddenly on January 11. His service and contribution both to the Museum and to the Amateur Telescope Makers and Observers, one of the Museum's scientific sections, is deeply appreciated. His very capable guidance in many of the activities of that Section has created a lively interest in the science of telescoping. Mr. McArtney was also greatly responsible for the popularity of the Sunday demonstrations here in the Spitz planetarium.



Science Congress. To enable science students and teachers of Western New York to see what is being accomplished in the various sciences, and to offer an opportunity for public recognition of science-talented youth, the Eighth Annual Science Congress will be conducted at the Museum on May 6, 1950. Sponsored by the science section of the Western Zone New York State Teachers Association, the Buffalo Evening News, and this Museum, it will be held in conjunction with the Seventh Annual Salon of Photography. For further details contact Richard H. Lape, Amherst Central High School, Snyder, New York.



Coal. One of the Museum's most important exhibits in March, if not the most valuable, was a one-foot cube of Famous Reading Anthracite securely locked in the Treasure-of-the-Month case. It was on display as a curio for the "duration."

Prompted also by the coal shortage, our aquarist, John A. Wanless, blancketed the Museum's snakes and other reptiles with gay pieces of plaid. The adult evening courses, scheduled to begin March 6, were of necessity postponed for two weeks, and the Museum really took on a tomb-like atmosphere.



Fur. A most welcome exhibit, *Stories in Hair and Fur*, arrived during the coal crisis and was on display at the Museum until March 31. Prepared by the Cranbrook Institute of Science, it featured fur farming and the whole fur industry with many costly pelts, all the facts pertaining to hair—its distribution and uses—the preservation of wildlife, and was one of the most comprehensive presentations of its kind ever offered.



Talks in Toronto. Heather G. Thorpe, weaving instructor at the Museum, was the speaker at the February meeting in Toronto, Canada, of the Ontario Spinners and Weavers Guild. She showed samples of weaving done by members in the Museum weaving classes and as her subject discussed the Crackle Weave, of Scandinavian origin.

Mrs. Jens Jensen, weaving assistant at the Museum, Evelyn M. Moitozo, Ruth A. Schmidt, and Charles E. Gillette, students in the Training Course in Museum Methods, accompanied Miss Thorpe. The group also visited the Royal Ontario Museum while in Toronto.

Deadliest Snakes. Two of the world's deadliest snakes, the bush-master and the coral snake, were shipped as preserved, scientific specimens to General Louis L. Babcock, member of the Board of Managers of the Buffalo Society of Natural Sciences, and recently presented by him to the Museum. At the request of Colonel Herbert D. Vogel, Engineer of Maintenance at the Canal Zone and a personal friend of General Babcock, these valuable specimens were obtained by Major O. A. Meyer, Chief of Canal Zone Police. They will become part of the Museum's study collection of amphibians and reptiles as soon as Paul Marchand finishes the models of them for display purposes.



Indian Fashion Show. One of the most spectacular entertainments enjoyed at the Museum recently featured the Indian Fashion Show presented by Dr. Frederic H. Douglas of the Denver Art Museum. More than thirty authentic Indian dresses were modeled on March 2 by art students from State Teachers College, and expressed the great ingenuity and

femininity of the Indian woman during the last hundred years.



Boneberg Albums. The circulating record library in the Music Division is being almost doubled by the donation of 468 albums. Mostly classical music, the gift is being made by Vernon N. Boneberg, Buffalo, who is replacing his private collection with the new long-playing records and giving the "shellacs" to the Museum where they may be enjoyed by many more listeners.



Staff. Mrs. Veronica Evans is welcomed to the Staff as telephone operator to replace Jean E. Beck, who is now accompanist at the Park School.

Fred R. Davis has been appointed as guard.

Announcement is regretfully made of the death of Joseph J. Hoelscher, a member of the Staff for thirteen years. "Joe" died suddenly on February 22 while performing his duties as night watchman. Charles West replaces him.



(Continued from ART, page 76)

The Sketch Clubs feel the loss of several of the college students, who left to assume other practice-teaching duties. Daniel Harter deserves a great deal of credit for his faithfulness in attendance and for the splendid work he did with the 1st-8th grades on Tuesdays and Thursdays.

The Museum and the Sketch Club's Instructor extend sincere thanks to all these college students who have given so generously of their time and effort. May their experience in practice teaching at the Buffalo Museum of Science prove invaluable to them in their future careers.

Follow the Explorers' Trail



In our backyard we often hear clear whistled melodies coming from a brown little fellow perched on a twig. When the singer faces us, we can see that his clean shirt is spattered with mud. An old Indian grandmother once told me how these spots got there.

When the world was young, there was great rivalry among Nature's children as to their singing ability. Then as now, some of the wild folk were better singers than others. Nevertheless each family thought their melodies far superior to any outsider's, and so each group had a very high opinion of their vocal ability. Often a minstrel from another family was greeted with abuse and sometimes worse.

Now, the song sparrow was always an artist. But one day he sang his delightful song in the marsh where the frogs dwelt. Since the best they can do is to croak, the sparrow's whistles were not very welcome. In fact they showed their displeasure by

Play Your Way To Knowledge

By Ellsworth Jaeger
Curator of Education
Buffalo Museum of Science

Spring comes riding on the chinook winds, and snow crystals are turned to droplets of rain. The drip of melting snow, the freeing of frozen brooklets, the push and surge of growing things are all part of the vernal resurrection of Nature. Skunk cabbages were the first to poke their green-and-purple hoods above the snow. Black-capped chickadees are performing aerial acrobatics and singing love songs, short and sweet. Furred hepaticas amid the leather-like leaves of last year, the shiny green of partridge berry and Christmas fern—all are harbingers of spring. Robins and bluebirds, too, heralding warmer days, are a welcome sight to all.

Jack-in-the-pulpit will soon be preaching his message of spring, and the spotted leaves of adder's-tongue are shooting up everywhere. Animals, sleepy-eyed from hibernation, are venturing out from winter beds. Many have lost their autumnal obesity and feel the need of a hearty meal. The woodchuck has now forgotten his shadow, and skunks, chipmunks, jumping mice, raccoons, and other sleepyheads are throwing off their winter blankets, or will be soon.



hurling mud at the poor bird. Some of it landed squarely on the sparrow's clean shirt, and in spite of the rains throughout the centuries the spots are still there.

Science in Black and White . . .

AMERICAN WILDFLOWERS

By Harold N. Moldenke, Ph.D. D. Van Nostrand Company, Incorporated, New York. \$6.95. L, 453 pages, 88 photographs in color and 67 in gravure, 1949.

Reviewed by Jane W. Chamberlain, Research Associate in Horticulture, Buffalo Museum of Science.

American Wildflowers is a tantalizing glimpse of our native flora that Harold N. Moldenke, Curator of the Herbarium at the New York Botanical Gardens, has given us, and the first in a series to be called the New Illustrated Naturalist.

The selection of 2,000 principal varieties, grouped in chapters according to their family relationships, was based on a nation-wide survey made by botanists and wildlife experts. It is more than a field guide for cross-country travelers. Dr. Moldenke has taken the reader behind the scenes to tell the story of countless amazing adaptations and marvelous devices that make possible the reproduction of the species by bird, bee, and other insects.

Concerning the cardinal flowers, *Lobelia cardinalis*, he relates that no landing stage for nectar-seeking visitors is needed. It is the humming bird with fast-beating wings that hovers before a flower as it thrusts its long beak into the corolla and receives the pollen on its head from the protruding stamens. "Were the stamens and the pistils included within the corolla tube as they are in the blue-flowered lobelias which depend upon bees, only the smooth beak of the bird would come in contact with them and pollination would not be effected."

The book is illustrated profusely, with pictures in color and in gravure taken in the field. The author touches upon the evolution of flowering plants

and their colors through the ages, which has proceeded more or less collaterally with that of the higher insects, and he points out the interdependence of each upon the other.

The response of 1,100 naturalists and botanists to the author's polling of the continent's showiest and most-likely-to-be-encountered wild herbaceous plants by the nature-loving traveler was revealing. It emphasizes, the author feels, that here in America "we are blessed with a glorious floral treasure house. It is up to us and our descendants to preserve and protect this heritage."

American Wildflowers, by such an outstanding authority on wildflowers and plant life in general, fills a definite need as a single book, more than a regional field book could and yet is not too technical a discourse. It sets a pattern for other books in the series on the natural history of North America.

ANTHROPOLOGY

By A. L. Kroeber. Harcourt, Brace and Company, New York. \$7.50. Revised edition, xii, 856 pages, 42 text figures, index (i-xxxvii). 1948.

Reviewed by Charles E. Gillette, anthropologist and member of the Training Course in Museum Methods at the Buffalo Museum of Science.

One of the best books on general anthropology which has been published in recent years is the second edition of *Anthropology* by A. L. Kroeber. Dr. Kroeber, recognized as one of the foremost anthropologists of our day, draws his context from a lifetime of study in the field. It is called a revised edition of the 1923 book of the same name, but in actuality is a completely rewritten and considerably expanded text.

The sub-title, "Race, Language, Culture, Psychology, Prehistory," indicates the scope of this work. With Dr. Kroeber's wide background of experience and research, he is well fitted to adequately discuss these varied aspects of anthropology. Although the style is easy going and conversational, it is not possible to classify this book as light reading in view of the complexity of the subject matter. Some of Dr. Kroeber's most significant contributions have been in culture and psychology, and it is understandable that these subjects should occupy a goodly portion of the book, but the other divisions of anthropology are equally well covered. This makes the book a good basic reference on the broad subject of anthropology for both the interested layman and the serious student.

THE SANDHILL CRANES

By Lawrence H. Walkinshaw. Bulletin 29, Cranbrook Institute of Science, Bloomfield Hills, Michigan. \$3.25. ix, 202 pages. 1949.

Reviewed by Dr. Harold H. Axtell, Curator of Biology, Buffalo Museum of Science.

The last of the former billions of Passenger Pigeons died in 1914. The Ivory-billed Woodpecker, largest in the United States or Canada, has become extinct within the past decade. It has just been announced that the total population of another grand

North American bird, the Whooping Crane, now consists of thirty-six individuals—a tragically and dangerously small remnant of its former glory. Would that we might have prevented its approach to extinction.

The Sandhill Crane is a related species with somewhat similar habits. Though at present throughout most of its former range, it is not yet knocking at the door of extinction. In this book, Dr. Walkinshaw gives us clearly, simply, and concisely, the results of his fifteen years' investigation of the life and habits of the Sandhill Cranes. The scientific value of the book is great, but perhaps best of all, herein is contained the information which may be used by alert conservationists to check the further decline of this great bird. Thanks to Dr. Walkinshaw, we now have for the Sandhill Crane what we lacked for the Whooping Crane. It should be a self-appointed duty of every ornithologist and bird lover to become acquainted with the essential facts and principles to be learned from this interesting book.

Errata. HOBBIES, February 1950 issue, volume 30, number 3, page 45, column 2, line 11 should read: is followed, and we are confident that. Line 15 should read: time, we are expectant not only that.



» Hobby Clubs and Scientific Sections «

Buffalo Ornithological Society

By Richard C. Rosche, Recording Secretary

For the second meeting in January, our Society met with the Audubon Society of Buffalo and heard Frances Rew, recipient of the Audubon Camp scholarship for 1949, give an excellent illustrated talk about her two-weeks' experience at the Audubon Nature Camp in Maine.

On February 8, fifty-one members and guests were greatly interested in a talk given by William Campbell from McMaster's University, Hamilton, Ontario, Canada. His talk, entitled "Birding from Long Point to Churchill," was illustrated with excellent Kodachrome slides of birds, snakes, mammals, and wildflowers taken in such places as Oak Orchard, Long Point, Hamilton, and Churchill, Manitoba.

A symposium, entitled "Life Zones-Niches in Our Territory," was conducted by several members of the Society at the meeting on February 22. Clark Beardslee acted as chairman. Miss Kyrn, assistant professor of biology at the University of Buffalo, explained plant environment in relation to birds. Dr. Harold H. Axtell, Ernest Seeber, William C. Vaughan, and Bernard Nathan discussed the influence of different life zones in our Western New York area.

On Sunday, January 26, Mr. Seeber led a field trip along the Canadian shore of Lake Erie. The sighting of two immature gannets, birds of the Atlantic Coast, was the highlight of the trip. Other interesting birds noted were snow bunting, killdeer, and ruddy duck.

Evening grosbeaks were in the minds of everyone as they started on a field trip to East Aurora, led by C. Knox on Sunday, February 5. After searching the town most of the morning with no success, they went to a nearby marsh. Returning to town quite disappointed, they suddenly spotted fifty-two evening grosbeaks on the main street.

Geological Section

By Grace P. Carter, Secretary

The January 25 meeting of the Section was held in the home of Dr. Wilbur Hoff, Huxley Road, Snyder, where we were privileged to examine his large collection of fossil ferns from the Pennsylvania of Illinois and numerous other fossils, minerals, gem stones, and Indian artifacts which he has displayed in lighted cabinets. We also examined his workshop in the basement

and his fossils, microscopes, and fluoroscope in his attic shop. Following the meeting Mrs. Hoff served a lunch, and a social hour was enjoyed. There were thirty present.

On February 22, the meeting was held at the Museum. Tentative plans were made for attending the New York State Geological Society's annual meeting at Syracuse University, April 28 and 29, 1950.

During September of this year, the Section will have an exhibit in the Print Room at the Museum. Rudolph Kopf was appointed chairman of the committee in charge of the project.

One of our members, Max Kopf, has been made Research Associate in Paleochondroderma and Machaeridae of the Buffalo Society of Natural Sciences.

The speaker of the evening, Cliff W. Hart, a former assayer, told of "The Recovery of Mercury" at Clear Lake, California, Sulphur Bank Mines—a cinnabar deposit, 125 miles north of San Francisco. Samples of cinnabar were shown.

The Section's membership has grown to thirty-five.

Microscopical Section

By Alice M. Gary, Secretary

Since the last HOBBIES report of the Microscopical Section, we have had four very interesting meetings.

On November 12, 1949, we met in the home of Mr. and Mrs. C. Allan Lyford. The paper of the evening, given by Mr. Lyford, was on "Lichens" and has aroused considerable interest in this growth which seems to take many forms.

The December 3 meeting was held with Mr. and Mrs. William H. Tornow. After many timely observations, the paper of the evening was given by Dr. W. W. Tornow, a resident physician at the Children's Hospital. He described microscopic examination of urine, sputum, and blood to determine diagnoses of diseases. Questions were invited and were readily asked.

On January 14, 1950, the meeting was held in the home of Mr. and Mrs. John Small. Dr. Oscar Richards had received a message from Dr. Vida A. Latham of Chicago, president of the Illinois Microscopical Section. The paper of the evening was given by Mr. Small on "Reflecting Objectives," in which he described and discussed reflecting and refracting microscopes, Newton vs. Schwartzchild. There is a microscope recently developed in the Netherlands

that looks like the original made some years ago.

The February 11 meeting was held in the home of Mr. and Mrs. F. James Dorst. William Wild remarked that there have been sizable flocks of evening grosbeaks seen around East Aurora. Three snowy owls have been staying around Buffalo harbor, one seen on the breakwall at the pumping station and two on Fuhrman Boulevard. James Lichtenthal found a small pearl recently while eating oysters. The paper of the evening was on "Plant Anatomy," delivered by Mr. Dorst and illustrated by photomicrographic slides. Mr. Dorst has a very apt pupil, his ten-year-old granddaughter, who is also quite an artist and illustrates what she sees under the microscope.

Conservation Forum of New York State

By Mabel H. James,

At the January meeting these applications for membership were approved: Elmira College Biology Department; Parent Teachers Association, School No. 18, Snyder; Ridge View Garden Club of Lewiston; Executive Board, Federated Garden Clubs, 8th District.

A circular letter supporting the Forum's legislative program was received from the Federation of New York State Bird Clubs. The Bergen Swamp will be featured in a conservation exhibit at the International Flower Show in New York, March 20-25.

Telegrams were authorized protesting destruction of "Shore Acres," known as a refuge for rare shore birds, by a proposed state highway from Rochester to Hamlin Beach and Park. An alternate route is suggested.

Homer C. Brooks provided an excellent program of motion pictures in color taken on western and southern trips.

At the February meeting, members of the Forum discussed the problems of ways and means of preventing re-zoning to permit the taking of gravel from a village location, leaving deep pits, as well as how to forestall the wanton destruction of a boundary-line tree of unusual size and beauty.

Writing of letters, cards or telegrams to Albany legislators in behalf of the Stokes bill (S. I. 30) to prevent Panther Dam, and the Volker bill (A. I. 1173) to protect the woodduck, was urged. In no other way can legislators know the wishes of constituents. A more recent bill by Senator Stokes would extend protection to the snowy owl and marsh hawk. This is also in line with Forum recommendations.

It was recommended that letters be written to congressmen approving bills for protection of the bald eagle in Alaska.

Peter Girard of the Junior Chamber of Commerce spoke in behalf of adoption into law of the recommendations of the Hoover Commission Report. Of twenty, he said, six major recommendations have been enacted by Congress. Adoption of the remaining fourteen would effect tremendous additional savings. Upon motion by Dr. Harry W. Learner, the Forum endorsed the recommendations. Individuals promised to write their congressmen.

Mrs. Jane W. Chamberlain of the Advisory Board showed Kodachrome slides of soil conservation in Erie and Wyoming counties, and of nature sanctuaries. William Meyer showed motion pictures in color of Humboldt Park taken during the war years. Many surprisingly beautiful trees and shrubs shown have since disappeared, along with former grassy areas. Use as playgrounds has occasioned some of the deterioration. These pictures concluded a program of more than usual interest.

Evening meetings of the Forum will be held April 19 and May 17; the annual School of Conservation on May 13. All are open to the public.

Audubon Society of Buffalo

John P. Bruck, Correspondent

The annual meeting of the Audubon Society of Buffalo was held on the evening of March 2 in the Town Club, and was one of the best attended meetings in years. Francis T. Tilley was elected President; Gertrude G. Webster, Vice-President; Ruth Norton, Corresponding Secretary; Sarah Knight, Recording Secretary; J. Edgar Gamble, Treasurer. The Directors are William H. Almendinger, John P. Bruck, Dr. Karl F. Eschelman, Harold D. Mitchell, James Savage, Edward L. Seeber, Adrian B. Wells, Charles A. Zenkert, Richard C. Rosche.

It was reported that 116 new members were affiliated. There were 147 bird-feeding stations established, and up to March 2 the record is 2,190 pounds of seeds distributed for wild birds. Mr. Seeber gave a good report on the progress of legislation for the conservation of wild life. Mr. Konefal had some pictures of his experience hiking through the country. Robert C. Hermes was the speaker of the evening. He had spent a summer on the coast of Maine and presented his unusual films of life and of birds in this rugged region.

On Saturday afternoon, February 25, we had a field trip to Grand Island. This will be one of the outstanding events of the

year not only because of the good attendance—twenty-five children from School No. 63 and twenty-five adults—and the unusual experience of seeing owls with captured rats, but because of some very important consequences which will follow. Besides Carl Buchheister, Vice-President of the National Audubon Society, Mr. Mitchell, Mr. Almendinger, Mr. Seeber, and Miss Webster were also on this trip. It was a great opportunity to have such splendid leadership.

In the evening, nineteen members had dinner at the YMCA with Mr. Buchheister who was evidently very pleased with the events of the afternoon. There are about 125 cities of our country where Mr. Buchheister lectures, and we hope he will mention our Society as he speaks in these cities.

This correspondent takes it upon himself to thank all those members who assisted on that important day.

Nature Sanctuary Society of Western New York, Inc.

By Victor E. Furman, Recording Secretary

The winter meetings of the Nature Sanctuary Society have been well attended and have all been very much enjoyed. At the December 15 meeting Mrs. Henry Juette told of Christmas Customs in Other Lands and accompanied her talk with yuletide songs appropriate to the various nationalities. Following the talk, refreshments were served, and an exchange of "white elephant" gifts took place.

Following regular business at the January 19 meeting, a splendid talk on insects was given by William Wild. This was illustrated with Kodachrome transparencies made by the speaker. The colors of the moths and butterflies were exquisitely real. The usual refreshment period was enjoyed while members and friends talked over coffee cups.

Although the Museum was cool due to the coal shortage, the attendance at the February 16 meeting was good. The Society was very fortunate in having Martin Schneckenburger, our newest member, give his very fine illustrated talk on Mount Vernon. His title was "Things Not Ordinarily Seen," and it certainly proved to be a thoroughgoing description with both interior and exterior pictures of Washington's home.

Conchological Section

By Margaret Teskey, Recording Secretary

As has been the custom during the past two seasons, the November, December, and

January meetings of the Conchological Section were held in the home of Mr. and Mrs. Harold R. Robertson.

At the November 5 meeting, a letter was read from Mrs. Ethel Blakeslee announcing that some of the shells from the collection of the late Clifford L. Blakeslee are now on display at the Rochester Museum of Arts and Sciences. Mrs. Margaret Teskey, the featured speaker, had as her topic, "Collecting in Michigan."

On December 3, James Cumming entertained with his travelogue, "Hop Scotch Across the Country." Running comment accompanied photographic slides and transported his audience across the United States and into Mexico—a most pleasant trip and greatly enjoyed. The evening was concluded when the volunteer hostess, Louise Becker, served delicious refreshments.

The first meeting of each year heralds election of officers, reading of annual reports, et cetera. Consequently, the first half of the January 7 meeting was devoted to official business. By unanimous vote the entire panel of officers was re-elected with the exception of the Corresponding Secretary. That post was vacated when the press of personal business made necessary the regretted resignation of Clifford Awald. James Cumming was elected to this office. Mrs. Imogene Robertson, President, Mrs. Annie Hoffman, Treasurer, and Mrs. Margaret Teskey, Recording Secretary, were those re-elected. Business being concluded, Open House was declared in the Robertson's shell room, with a generous distribution of Florida shells to all. The evening was climaxed with a surprise banquet served in the spacious dining room, where places were taken at the laden table as directed by clever place cards adorned with seaweed sprays and tiny shells. It was truly a molluscan meal, for the lobster salad was made with seashell macaroni, served in cockle shells on shell-shaped place mats. Abalone shells held crackers, cookies, candies; even tiny mother-of-pearl salt spoons were in evidence, while an ivy plant in a shell-shaped pot graced the center of the table. Edna Choate and Mrs. Nellie Sanborn were the gracious hostesses, and together with the Robertsons are to be congratulated on their unique spread.

Science Museum Photographic Club

By Walter C. Van Buren, Publicity Chairman

Highlight of the spring season will be the appearance of Wood "Pops" Whitesell, a fellow of the Photographic Society of America, who will give a lecture and demonstration for the Club on Tuesday, April 25. A native of New Orleans, he is making

a tour of eastern cities under the sponsorship of member clubs of the PSA. His visit to Buffalo will be made early in his tour, and local members are eagerly awaiting this outstanding program.

Members voted on the pictures made at the Model Night held in January, and the makers of the three winning prints were: first, Walter C. Van Buren; second, Mrs. Nelson J. Tremor; third, George W. McDonald.

Winners of the February print competition were: Senior—Mrs. Tremor, Alfred Watson, Herbert J. Ball; Advanced—E. Thomas Smith, Mr. McDonald, Sigurd Smith; Tyro—Berend J. Burns, Jr., Edgar K. Nauth and Joseph L. Marso (tied), and Edward Bebe.

The first color-slide competition of 1950 was held in February and it was almost a "family" affair for the Bashnans. In the Silver class, Nicholas Bashnan took first place and his wife, Luba, captured second and third. In the Gold class, the winners were: Clifford E. Matteson, Herbert M. Weihrich, and Daniel Bauer.

During the month of February two more of Mr. Matteson's color photographs were published on the cover of the pictorial section of the Sunday Courier-Express. It seems Cliff is a hardy individual who likes to get out in the icy, cold winter weather to make some really excellent winter pictures.

Results of the 1949 national contest held by Graflex of Rochester have been announced. Over 5,000 entries were judged, and your correspondent was fortunate enough to get an Award of Merit, and thus managed to have our Club represented among the award winners.

Club members were also the outstanding nature-print makers in the first of two nation-wide contests of nature pictures sponsored by the PSA. SMPC members took five of the eleven awards. Mr. Matteson was first, and Louis Quitt second. Each received a silver medal. First, second, and third honorable-mention ribbons went to Club president, Harry R. Reich, Mrs. Ruth F. Sage, and Mrs. Tremor.

The February exhibit in the Museum of forty-eight photographs made by Club members brought much favorable comment from members and guests. In addition to local acclaim, the exhibit also was well received

in many cities throughout the nation during the past two years. The prints all have a large collection of exhibition stickers on the back of the mounts.

"Getting Results in Color," an illustrated talk by Eugene Johnson, color technician of Eastman Kodak Company, held on February 21, was probably one of the best color lectures available this year. Mr. Johnson ably covered the field of color photography, and color enthusiasts kept him busy answering questions for a long period after the conclusion of his lecture. A future demonstration on the Flexichrome process of making color prints has been promised by the same company.

Allegany Field and Trail Club

By Daisy Thompson, Publicity Chairman

Among activities included in the current schedule of the Allegany Field and Trail Club were several trips to surrounding parks where a variety of winter sports were enjoyed. There was also a trip to Niagara Falls, which afforded a splendid view of that stupendous sight in all its winter glory. An enjoyable Sunday afternoon was spent at one of the Hayes Lectures, and another visiting the dry-cleaning plant of our host, Val Konefal. Saturday evening features included square dancing at the Kenmore "Y," an indoor meeting, and our annual banquet and installation of officers at the Park Lane on February 18. After the delicious dinner, the Master of Ceremonies, John Euler, conducted the installation, and those installed were: Mrs. John Soderholm, President; John K. Stewart, First Vice-President; Mrs. Agnes Schlee, Second Vice-President; Florence Schmidt, Secretary-Treasurer; Dorothy Laske, Corresponding Secretary. The retiring President, Minnie Truhn, gave a very fine speech in which she thanked the numerous committee members who had assisted her during the past year. Miss Truhn was presented with a handsome traveling bag as a token of appreciation for the untiring effort and willing leadership given the Club during her term of office. Mrs. Soderholm graciously accepted her new office, at which time she named committee members and related a few plans for the coming year. An evening of dancing and entertainment followed.



Final Notice . . .

TWELFTH
INTERNATIONAL SALON OF NATURE PHOTOGRAPHY
conducted by the
SCIENCE MUSEUM PHOTOGRAPHIC CLUB
with the cooperation of
HOBBIES, THE MAGAZINE OF THE BUFFALO MUSEUM OF SCIENCE
May 16 through June 12, 1950
at the
Buffalo Museum of Science
Last day for receiving entries—May 13
Forms available on request

Juries of Selection

Monochrome Section

Edwin J. Howard
Oxford, Ohio
Louis Quitt
Buffalo, New York
Dr. Robert L. Roudabush
Rochester, New York

Color Section

Robert C. Hermes
Buffalo, New York
Edward A. Hill
Fleetwood, Pennsylvania
Roy J. Tillotson
Batavia, New York

The Museum Acknowledges . . .

DONATIONS AND LOANS

The Buffalo Society of Natural Sciences acknowledges with appreciation donations and loans received during the months of January and February, 1950.

DONATIONS—CLASS I

Vernon N. Boneberg
16 albums of records
Buffalo Evening News
Filmstrip, "Statehood for Hawaii"
United States Army, General Headquarters,
Far East Command
20 specimens of wood from Japan
J. P. Vesper
Dagger from an island near Japan
Col. Herbert D. Vogel
Bushmaster and coral snake
William Wild
2 books, "The Letters of T. E. Lawrence"

and "Three Voyages of a Naturalist" by
M. J. Nicoll

DONATIONS—CLASS II

Donald Boyd
Blanding's turtle
Donald Dale
3 small turtles

LOANS

Ceramics Section
Exhibit by members
Howard Geschwender
5 pieces of ancient carved ivory from the
Island of Shemya in the Aleutians
New York State Department of Commerce
12 mounted photographs of winter sports
in New York State
Photographic Society of America
24 mounted prints

MEMBERSHIP RECORDS

The President and Board of Managers of the Buffalo Society of Natural Sciences welcome to membership the following who enrolled during the months of January and February, 1950.

HONORARY LIFE MEMBER

Mrs. John F. Ames

PATRON MEMBERS

Saints Peter and Paul School, Williams-ville, New York

School Street School, Lancaster, New York

ANNUAL MEMBERS

American Youth Hostels, Buffalo Council

Louise W. Becker

Jewish Center of Buffalo, Incorporated

Missionary Society of People's Community Church

Joe Neibert's Grass Fire Company

Niagara Auto Parts, Incorporated

St. Michael's School

Batavia Civic Orchestra, Incorporated, Ba-

tavia, New York

New Bedford Chamber Music Society, New

Bedford, Massachusetts

Public Schools of Newton, Newtonville, Massachusetts

EDUCATIONAL MEMBER

Francis X. Francis Jr.

ASSOCIATE MEMBERS

Mrs. Carrie Bylebyl

Mrs. Mason O. Damon

Mrs. Benjamin Fuente

Dale Kaufman

Mrs. Dale Kaufman

Harry W. Lauer

Arthur J. Lochte

BUFFALO MUSEUM OF SCIENCE

Administered by

BUFFALO SOCIETY OF NATURAL SCIENCES

HUMBOLDT PARK

OFFICERS AND BOARD OF MANAGERS OF BUFFALO SOCIETY OF NATURAL SCIENCES

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JAMES SAVAGE, 1st Vice-President

HAROLD D. MITCHELL, Secretary

DEXTER P. RUMSEY, Treasurer

GEORGE F. GOODYEAR, President

CHARLES R. WILSON, 2nd Vice-President

FREDERICK HOUGHTON, 3rd Vice-President

FRANCIS E. FRONCZAK, M.D., Corresponding Secretary

TERMS EXPIRING IN 1950

ROBERT T. BAPST

† DR. A. L. BENEDICT

ALICK L. CARTER

CHARLES H. DIEFENDORF

FRANCIS E. FRONCZAK, M.D.

LEWIS J. HARRIMAN

FREDERICK HOUGHTON

SEYMOUR H. KNOX

BURROWS MATTHEWS

THE HON. MICHAEL J. MONTESANO

JULIAN PARK

HARRY W. ROCKWELL

JOSEPH B. ROUNDS

DEXTER P. RUMSEY

J. F. SCHOELLKOPF, JR.

REGINALD B. TAYLOR

FRANCISCUS VISSER'T HOOFT

† Deceased

TERMS EXPIRING IN 1951

LOUIS L. BABCOCK

CAMERON BAIRD

CLARK S. BEARDSLEE

HENRY W. COMSTOCK

CARLOS E. CUMMINGS, M.D.

PAUL E. FITZPATRICK

DAVID G. FORMAN

J. CRATE LARKIN

HAROLD D. MITCHELL

THE MOST REV. JOHN F. O'HARA,

C.S.C., D.D.

RALPH H. PLUMB

J. FREDERICK SCHOELLKOPF IV

S.V.R. SPAULDING

DANIEL W. STREETER

THE VERY REV. EDWARD R. WELLES

CHARLES R. WILSON

HARRY YATES

TERMS EXPIRING IN 1952

LAWRENCE D. BELL

EDWARD H. BUTLER

SAMUEL P. CAPEN

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BUFFALO MUSEUM OF SCIENCE
MEMBER OF AMERICAN ASSOCIATION OF MUSEUMS

MUSEUM INFORMATION

DR. CARLOS E. CUMMINGS, Director Emeritus
ELLSWORTH JAEGER, Curator of Education and Executive Secretary
THE MUSEUM IS EASY TO REACH—THE LATCHSTRING IS OUT

EXHIBIT HOURS—ADMISSION IS FREE AT ALL TIMES

Mondays through Fridays 10 to 5 Saturdays 9 to 5 Sundays 1:30 to 5:30

EXHIBITS

The Museum is arranged like a book with each exhibit a separate chapter complete in itself. All the halls taken together tell the fascinating story of science in natural sequence, beginning with the constitution of matter and ending with civilization.

The Halls tell the stories of the constitution of matter, the heavenly bodies, the earth's structure, the coming of life, the simplest forms of life, the vegetable kingdom, the higher forms of life, the story of development, our hope for the future, the story of man, our earliest ancestors, the evolution of society, prehistoric and primitive art motifs arranged for comparative study, and local plants and animals.

INFORMATION DESK

The Museum's Schedule of Activities and other free literature are available at the Information Desk. *Your Guide to the Buffalo Museum of Science*, other Guides, HOBBIES, etc., are for sale there. A list of publications is available upon request.

CAFETERIA

Cafeteria service is available to the public in the Museum from 8 a.m. to 3 p.m. daily except Sunday.

MUSEUM SUPPORT

The Museum is supported in three ways: City appropriation, small endowment fund, and membership in the Buffalo Society of Natural Sciences.

The officers will be glad to discuss, with friends of the Museum, bequests, special gifts, or other ways of assisting in the Museum's work.

MEMBERSHIP PRIVILEGES

Special privileges are offered members. Memberships range from \$5 up. Ask for the leaflet, "The Museum That Service Built," which gives full details.